



# CITY OF LODI COUNCIL COMMUNICATION

**AGENDA TITLE:** Specifications and advertisement for bids for 22,000 feet of 600V insulated aluminum cable (EUD)

**MEETING DATE:** September 7, 2005

**PREPARED BY:** Electric Utility Director

**RECOMMENDED ACTION:** That the City Council approve the attached specifications for 600-volt insulated electrical conductor, and authorize the advertisement for bids for 22,000 feet of #750kcmil 600-volt insulated aluminum cable for the Electric Utility Department.

**BACKGROUND INFORMATION:** The Department currently has requirements for over 27,000 feet of #750kcmil insulated aluminum conductor for projects including Vintner's Square, Lodi High School, and Plummer Auto Mall east of Highway 99 (see complete list below).

Current inventory of #750 cable (as of August 22) is 8,600 feet; however, 2,000 feet of that amount must be held in reserve for emergency cable replacement in case of system failure, leaving 6,600 feet of conductor available for use in work orders. Net requirement, then (27,160 – 6,600), is 20,560 feet to cover current work orders. Additional projects coming onstream between now and the delivery date for this cable will likely push actual needs beyond the 20,560-foot current need; therefore, staff recommends an order quantity of 22,000 feet.

Current projects:

Plummer / Auto Mall	14,000 '	Riverwalk	720 '
Vintner's Square	6,180 '	Lincoln School & 1125 E Pine	800 '
Lodi High School	3,680 '	Work Orders 3292 & 3293	500 '
Katzakian Commercial	1,280 '	<b>TOTAL</b>	<b>27,160 '</b>

**FISCAL IMPACT:** Cost of purchase of 22,000 feet of #750kcmil: Estimated \$45,000; Cost recovery expected from future sale of electrical power.

**FUNDING AVAILABLE:** Electric Utility Department 2005-2006 Financial Plan and Budget, Line Extensions, Business Unit 161651

*James R. Krueger*  
James R. Krueger, Finance Director

*Mel Grandi*  
Mel Grandi, Interim Electric Utility Director

Attachment: Equipment Specifications  
Prepared by Joel Harris, Purchasing Officer

cc: City Attorney  
Electrical Engineer (EUD)

**APPROVED:** *[Signature]*  
Blair King, City Manager

## EQUIPMENT SPECIFICATIONS

### 600-VOLT XHHW 750kcmil ALUMINUM CONDUCTOR

#### **GENERAL:**

Cable furnished under these specifications shall be limited to cross-linked polyethylene, high-heat, moisture-resistant insulated cable rated 600 volts and suitable for installation in ducts, in wet or dry locations, with normal conductor temperatures up to 90 degrees C. Cables furnished shall meet the requirements of the applicable NEMA, ICEA, AEIC, and ASTM standards, latest edition thereof, unless otherwise noted in this specification.

#### **CABLE:**

##### A. CONDUCTOR:

The conductor shall be aluminum alloy, 35 or 37 strands.

##### B. INSULATION:

Conductor insulation shall be black, cross-linked polyethylene XHHW or XHHW-2, high-heat and moisture resistant.

##### C. IDENTIFICATION:

Each conductor shall have a permanent marking showing the manufacturer's name, voltage rating, conductor size and type of insulation.

##### D. TESTING AND GUARANTEE:

Testing of cable shall be performed according to procedures set forth by the ICEA, AEIC and ASTM. Certified copies of Pass/Fail test results shall be supplied to the City of Lodi at time of shipment. Any cable found defective either upon inspection, testing or installation will be returned at the manufacturer's expense.

##### E. CONDITIONAL BIDS:

Any conditional bids such as "subject to availability in stock" will be rejected as non-responsive.

## **REELS:**

### **A. MAKEUP:**

The conductor shall be supplied on standard reels at 1000 feet per reel.

### **B. PACKAGING**

Each reel shall have moisture-resistant protective covering across the conductor, such covering to consist of coated paperboard or plastic wrap.

Each end of the cable shall be sealed to prevent moisture incursion, and each end shall be firmly secured to the reel. Each reel shall be palletized.

### **C. MARKING**

Each reel shall be marked with a durable label securely attached to a flange of the reel and plainly marked stating the destination, the purchaser's order number, shipping length of cable on reel, type and size of conductor, insulation type and thickness, voltage rating and manufacturer's identification number.

### **D. SHIPPING:**

All reels shall be shipped on pallets via truck, and shipments shall be prepaid, F.O.B. 1331 South Ham Lane, Lodi, California.